

Consumers Water District 2023 Water Quality Report

Manager: Brent Shultz
Address: P.O. Box 329 Mayfield, Ky 42066
Meetings: Mayfield Electric and Water Office / Fourth Tuesday each month at 8:00 am

CCR Contact: Todd Thurston

PWSID: KY0420084
Phone: 270-247-4661

The drinking water for Consumers is purchased from Mayfield Water System and is treated by certified water system operators. Groundwater is obtained from five wells drilled into an aquifer of the Claiborne Group beneath our community. The susceptibility to contamination for our source of water is generally low but there are areas of concern. Groundwater can become contaminated due to chemical spills near highways and industrial sites. It can also be contaminated due to underground fuel storage tanks or agriculture activities. Another area of concern is unreported of improperly capped wells drilled into the same aquifer. A Wellhead Protection Plan was developed to identify any potential contaminant source that may threaten our water supply. The source water assessment to determine potential contaminant sources indicates that currently none of the concerns mentioned above are posing a threat to the water supply but we will continue to monitor activities in the area. The Wellhead Protection Plan is available for review at our office during normal business hours. We encourage you to help us protect your drinking water supply by reporting any activity that may pose a threat.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects may be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and may pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include: Microbial contaminants, such as viruses and bacteria, (sewage plants, septic systems, livestock operations, or wildlife). Inorganic contaminants, such as salts and metals, (naturally occurring or from stormwater runoff, wastewater discharges, oil and gas production, mining, or farming). Pesticides and herbicides, (stormwater runoff, agriculture or residential uses). Organic chemical contaminants, including synthetic and volatile organic chemicals, (by-products of industrial processes and petroleum production, or from gas stations, stormwater runoff, or septic systems). Radioactive contaminants, (naturally occurring or from oil and gas production or mining activities). In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water to provide the same protection for public health.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Your local public water system is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Some or all of these definitions may be found in this report:

Maximum Contaminant Level (MCL) - the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG) - the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level (MRDL) - the highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG) - the level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Below Detection Levels (BDL) - laboratory analysis indicates that the contaminant is not present.

Not Applicable (N/A) - does not apply.

Parts per million (ppm) - or milligrams per liter, (mg/l). One part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) - or micrograms per liter, (µg/L). One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Parts per trillion (ppt) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

Parts per quadrillion (ppq) - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.

Picocuries per liter (pCi/L) - a measure of the radioactivity in water.

Millirems per year (mrem/yr) - measure of radiation absorbed by the body.

Million Fibers per Liter (MFL) - a measure of the presence of asbestos fibers that are longer than 10 micrometers.

Nephelometric Turbidity Unit (NTU) - a measure of the clarity of water. Turbidity has no health effects. However, turbidity can provide a medium for microbial growth. Turbidity is monitored because it is a good indicator of the effectiveness of the filtration system.

Variations & Exemptions (V&E) - State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

Action Level (AL) - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system shall follow.

Treatment Technique (TT) - a required process intended to reduce the level of a contaminant in drinking water.

Spanish (Español) Este informe contiene información muy importante sobre la calidad de su agua beber. Tradúzcalo o hable con alguien que lo entienda bien.

To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

The data presented in this report are from the most recent testing done in accordance with administrative regulations in 401 KAR Chapter 8. As authorized and approved by EPA, the State has reduced monitoring requirements for certain contaminants to less often than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data in this table, though representative, may be more than one year old. **Copies of this report are available upon request by contacting our office during business hours.**

Regulated Contaminant Test Results MAYFIELD WATER & ELECTRIC (KY0420274)

| Contaminant [code] (units) | MCL | MCLG | Report Level | Range of Detection | Date of Sample | Violation | Likely Source of Contamination |
|-------------------------------|-----|------|--------------|--------------------|----------------|-----------|--|
| Inorganic Contaminants | | | | | | | |
| Barium [1010] (ppm) | 2 | 2 | 0.019 | 0.019 to 0.019 | Jul-23 | No | Drilling wastes; metal refineries; erosion of natural deposits |
| Fluoride [1025] (ppm) | 4 | 4 | 0.73 | 0.73 to 0.73 | Jul-23 | No | Water additive which promotes strong teeth |
| Nitrate [1040] (ppm) | 10 | 10 | 2.42 | 2.42 to 2.42 | Jul-23 | No | Fertilizer runoff; leaching from septic tanks, sewage; erosion of natural deposits |

Volatile Organic Contaminants

| | | | | | | | |
|----------------------------------|---|---|-----|------------|--------|----|--|
| Tetrachloroethylene [2987] (ppb) | 5 | 0 | 1.1 | 1.1 to 1.1 | Aug-23 | No | Leaching from PVC pipes; discharge from factories and dry cleaners |
|----------------------------------|---|---|-----|------------|--------|----|--|

Regulated Contaminant Test Results CONSUMERS WATER DISTRICT (KY0420084)

| Contaminant [code] (units) | MCL | MCLG | Report Level | Range of Detection | Date of Sample | Violation | Likely Source of Contamination |
|--|----------|-----------|------------------------|------------------------------------|----------------|-----------|---|
| Disinfectants/Disinfection Byproducts | | | | | | | |
| Chlorine (ppm) | MRDL = 4 | MRDLG = 4 | 1.14 (highest average) | 0.79 to 1.77 | 2023 | No | Water additive used to control microbes. |
| HAA (ppb) (Stage 2) [Haloacetic acids] | 60 | N/A | 1 (high site average) | 0 to 1 (range of individual sites) | 2023 | No | Byproduct of drinking water disinfection |
| TTHM (ppb) (Stage 2) [total trihalomethanes] | 80 | N/A | 3 (high site average) | 3 to 3 (range of individual sites) | 2023 | No | Byproduct of drinking water disinfection. |

Household Plumbing Contaminants

| | | | | | | | |
|--|----------|-----|-------------------------------------|---------------|--------|----|---|
| Copper [1022] (ppm) sites exceeding action level 0 | AL = 1.3 | 1.3 | 0.048 (90 th percentile) | 0.004 to 0.06 | Jul-23 | No | Corrosion of household plumbing systems |
| Lead [1030] (ppb) sites exceeding action level 0 | AL = 15 | 0 | 2 (90 th percentile) | 0 to 4 | Jul-23 | No | Corrosion of household plumbing systems |

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

Fancy Farm Water District 2023 Water Quality Report

Manager: Brent Shultz
Address: P.O. Box 329 Mayfield, Ky 42066
Meetings: Mayfield Electric and Water Office / Fourth Tuesday each month at 8:00 am

CCR Contact: Todd Thurston

PWSID: KY0420027
Phone: 270-247-4661

The source of our drinking water is groundwater. The district withdraws water from two wells drilled into the Claiborne Group aquifer where it is processed at our water treatment plant. During the treatment process the raw water pH is adjusted then disinfected with chlorine to further protect public health. As part of a multi-barrier approach to safeguard the public, land uses within the wellhead protection area have been assessed to better understand their potential impact to water quality and to assign a susceptibility rating. A susceptibility analysis uses a weighted rating system which evaluates the toxicity, distance, and likelihood of release of contaminants to adversely affect water quality. The rating for our source is low. Potential sources of contamination include transportation corridors, agricultural application and fuel storage tanks. Poorly constructed and/or abandoned water wells drilled into the same aquifer are an additional concern. Activities and land use within the watershed can pose potential risk to your drinking water. Under certain circumstances contaminants could be released that would pose challenges to water treatment or even get into your drinking water. These activities, and how they are conducted, are of interest to the entire community because they potentially affect your health and the cost of treating your water. The completed source water assessment / wellhead protection plan is available for review by contacting the Water Management Coordinator with the Purchase area development District in Mayfield, KY at 270-251-7171.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects may be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

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Parts per trillion (ppt) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

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Picocuries per liter (pCi/L) - a measure of the radioactivity in water.

Millirems per year (mrem/yr) - measure of radiation absorbed by the body.

Million Fibers per Liter (MFL) - a measure of the presence of asbestos fibers that are longer than 10 micrometers.

Nephelometric Turbidity Unit (NTU) - a measure of the clarity of water. Turbidity has no health effects. However, turbidity can provide a medium for microbial growth.

Turbidity is monitored because it is a good indicator of the effectiveness of the filtration system.

Variations & Exemptions (V&E) - State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

Action Level (AL) - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system shall follow.

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Spanish (Español) Este informe contiene información muy importante sobre la calidad de su agua beber. Tradúzcalo o hable con alguien que lo entienda bien.

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Regulated Contaminant Test Results Fancy Farm Water District

| Contaminant [code] (units) | MCL | MCLG | Report Level | Range of Detection | Date of Sample | Violation | Likely Source of Contamination |
|-------------------------------|-----|------|--------------|--------------------|----------------|-----------|--|
| Inorganic Contaminants | | | | | | | |
| Barium [1010] (ppm) | 2 | 2 | 0.006 | 0.006 to 0.006 | Jul-23 | No | Drilling wastes; metal refineries; erosion of natural deposits |
| Fluoride [1025] (ppm) | 4 | 4 | 0.55 | 0.55 to 0.55 | Jul-23 | No | Water additive which promotes strong teeth |
| Nitrate [1040] (ppm) | 10 | 10 | 1.38 | 1.38 to 1.38 | Jul-23 | No | Fertilizer runoff; leaching from septic tanks, sewage; erosion of natural deposits |

Disinfectants/Disinfection Byproducts and Precursors

| | | | | | | | |
|--|----------|-----------|------------------------|------------------------------------|------|----|---|
| Chlorine (ppm) | MRDL = 4 | MRDLG = 4 | 1.13 (highest average) | 0.73 to 1.5 | 2023 | No | Water additive used to control microbes. |
| HAA (ppb) (Stage 2) [Haloacetic acids] (Annual Sample) | 60 | N/A | 2 (high site) | 0 to 2 (range of individual sites) | 2023 | No | Byproduct of drinking water disinfection |
| TTHM (ppb) (Stage 2) [total trihalomethanes] (Annual Sample) | 80 | N/A | 3 (high site) | 1 to 3 (range of individual sites) | 2023 | No | Byproduct of drinking water disinfection. |

Household Plumbing Contaminants

| | | | | | | | |
|--|----------|-----|-------------------------------------|---------------------------|--------|----|---|
| Copper [1022] (ppm) Round 1 sites exceeding action level 0 | AL = 1.3 | 1.3 | 0.044 (90 th percentile) | 0.005 to 0.051 | Sep-23 | No | Corrosion of household plumbing systems |
| Lead [1030] (ppb) Round 1 sites exceeding action level 0 | AL = 15 | 0 | 5 (90 th percentile) | 0 to 6 | Sep-23 | No | Corrosion of household plumbing systems |
| | | | Average | Range of Detection | | | |
| Sodium (EPA guidance level = 20 mg/L) | | | 27.5 | 27.5 to 27.5 | | | |

Secondary contaminants do not have a direct impact on the health of consumers. They are being included to provide additional information about the quality of the water.

| Secondary Contaminant | Maximum Allowable Level | Report Level | Range of Detection | Date of Sample |
|------------------------|-------------------------|--------------|--------------------|----------------|
| Chloride | 250 mg/l | 3.9 | 3.9 to 3.9 | Jul-23 |
| Copper | 1.0 mg/l | 0.033 | 0.033 to 0.033 | Jul-23 |
| Corrosivity | Noncorrosive | -2.97 | -2.97 to -2.97 | Jul-23 |
| Fluoride | 2.0 mg/l | 0.67 | 0.67 to 0.67 | Jul-23 |
| pH | 6.5 to 8.5 | 6.4 | 6.4 to 6.4 | Jul-23 |
| Sulfate | 250 mg/l | 1.4 | 1.4 to 1.4 | Jul-23 |
| Total Dissolved Solids | 500 mg/l | 102 | 102 to 102 | Jul-23 |

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Hardeman Water District 2023 Water Quality Report

Manager: Brent Shultz
Address: P.O. Box 329 Mayfield, Ky 42066
Meetings: Mayfield Electric and Water Office / Fourth Tuesday each month at 8:00 am

CCR Contact: Todd Thurston

PWSID: KY0420172
Phone: 270-247-4661

The drinking water for Hardeman is produced from Mayfield Water System and is treated by certified water system operators. Groundwater is obtained from five wells drilled into an aquifer of the Claiborne Group beneath our community. The susceptibility to contamination for our source of water is generally low but there are areas of concern. Groundwater can become contaminated due to chemical spills near highways and industrial sites. It can also be contaminated due to underground fuel storage tanks or agriculture activities. Another area of concern is unreported or improperly capped wells drilled into the same aquifer. A Wellhead Protection Plan was developed to identify any potential contaminant source that may threaten our water supply. The source water assessment to determine potential contaminant sources indicates that currently none of the concerns mentioned above are posing a threat to the water supply but we will continue to monitor activities in the area. The Wellhead Protection Plan is available for review at our office during normal business hours. We encourage you to help us protect your drinking water supply by reporting any activity that may pose a threat.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects may be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

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Below Detection Levels (BDL) - laboratory analysis indicates that the contaminant is not present.

Not Applicable (N/A) - does not apply.

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Parts per billion (ppb) - or micrograms per liter, ($\mu\text{g/L}$). One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Parts per trillion (ppt) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

Parts per quadrillion (ppq) - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.

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Regulated Contaminant Test Results **MAYFIELD ELECTRIC AND WATER (KY0420274)**

| Contaminant [code] (units) | MCL | MCLG | Report Level | Range of Detection | Date of Sample | Violation | Likely Source of Contamination |
|-------------------------------|-----|------|--------------|--------------------|----------------|-----------|--|
| Inorganic Contaminants | | | | | | | |
| Barium [1010] (ppm) | 2 | 2 | 0.019 | 0.019 to 0.019 | Jul-23 | No | Drilling wastes; metal refineries; erosion of natural deposits |
| Fluoride [1025] (ppm) | 4 | 4 | 0.73 | 0.73 to 0.73 | Jul-23 | No | Water additive which promotes strong teeth |
| Nitrate [1040] (ppm) | 10 | 10 | 2.42 | 2.42 to 2.42 | Jul-23 | No | Fertilizer runoff; leaching from septic tanks, sewage; erosion of natural deposits |

Volatile Organic Contaminants

| | | | | | | | |
|----------------------------------|---|---|-----|------------|--------|----|--|
| Tetrachloroethylene [2987] (ppb) | 5 | 0 | 1.1 | 1.1 to 1.1 | Aug-23 | No | Leaching from PVC pipes; discharge from factories and dry cleaners |
|----------------------------------|---|---|-----|------------|--------|----|--|

Disinfection Byproduct Precursor

Regulated Contaminant Test Results **HARDEMAN WATER DISTRICT (KY0420172)**

| Contaminant [code] (units) | MCL | MCLG | Report Level | Range of Detection | Date of Sample | Violation | Likely Source of Contamination |
|--|----------|-----------|------------------------|------------------------------------|----------------|-----------|---|
| Disinfectants/Disinfection Byproducts | | | | | | | |
| Chlorine (ppm) | MRDL = 4 | MRDLG = 4 | 0.93 (highest average) | 0.6 to 1.27 | 2023 | No | Water additive used to control microbes. |
| HAA (ppb) (Stage 2) [Haloacetic acids] | 60 | N/A | 1 (high site average) | 0 to 1 (range of individual sites) | 2023 | No | Byproduct of drinking water disinfection |
| TTHM (ppb) (Stage 2) [total trihalomethanes] | 80 | N/A | 8 (high site average) | 7 to 8 (range of individual sites) | 2023 | No | Byproduct of drinking water disinfection. |

Household Plumbing Contaminants

| | | | | | | | |
|--|----------|-----|-------------------------------------|----------------|--------|----|---|
| Copper [1022] (ppm) sites exceeding action level 0 | AL = 1.3 | 1.3 | 0.138 (90 th percentile) | 0.006 to 0.319 | Sep-21 | No | Corrosion of household plumbing systems |
| Lead [1030] (ppb) sites exceeding action level 0 | AL = 15 | 0 | 0 (90 th percentile) | 0 to 47 | Sep-21 | No | Corrosion of household plumbing systems |

Your drinking water has been sampled for a series of unregulated contaminants. Unregulated contaminants are those that EPA has not established drinking water standards. There are no MCLs and therefore no violations if found. The purpose of monitoring for these contaminants is to help EPA determine where the contaminants occur and whether they should have a standard. As our customers, you have a right to know that these data are available. If you are interested in examining the results, please contact our office during normal business hours.

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Hickory Water District 2023 Water Quality Report

Manager: Brent Shultz
Address: P.O. Box 329 Mayfield, Ky 42066
Meetings: Mayfield Electric and Water Office / Fourth Tuesday each month at 8:00 am

CCR Contact: Todd Thurston

PWSID: KY0420194
Phone: 270-247-4661

The drinking water for Hickory Water District (HWD) is treated by certified water system operators. HWD withdraws groundwater from 3 wells. A Wellhead Protection Program Plan has been developed for the water system and copies of the plan may be reviewed at our office during normal business hours. The source of raw water for HWD is the unconsolidated sands of the Claiborne Group in Graves County. An analysis of the overall susceptibility to contamination of HWD's water indicated that this susceptibility is low. There are 26 potential sources of contamination within the wellhead protection area with the following susceptibility ranking: 1 high, 5 medium, and 20 low. Source of high potential impact include: Highway 45. Sources of moderate to low impact include: septic systems, agricultural land and a cemetery. This is the summary of the susceptibility analysis. Please report any activity that you feel could jeopardize our water supply.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects may be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and may pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include: Microbial contaminants, such as viruses and bacteria, (sewage plants, septic systems, livestock operations, or wildlife). Inorganic contaminants, such as salts and metals, (naturally occurring or from stormwater runoff, wastewater discharges, oil and gas production, mining, or farming). Pesticides and herbicides, (stormwater runoff, agriculture or residential uses). Organic chemical contaminants, including synthetic and volatile organic chemicals, (by-products of industrial processes and petroleum production, or from gas stations, stormwater runoff, or septic systems). Radioactive contaminants, (naturally occurring or from oil and gas production or mining activities). In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water to provide the same protection for public health.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Your local public water system is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Some or all of these definitions may be found in this report:

Maximum Contaminant Level (MCL) - the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG) - the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level (MRDL) - the highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG) - the level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Below Detection Levels (BDL) - laboratory analysis indicates that the contaminant is not present.

Not Applicable (N/A) - does not apply.

Parts per million (ppm) - or milligrams per liter, (mg/l). One part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) - or micrograms per liter, ($\mu\text{g/L}$). One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Parts per trillion (ppt) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

Parts per quadrillion (ppq) - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.

Picocuries per liter (pCi/L) - a measure of the radioactivity in water.

Millirems per year (mrem/yr) - measure of radiation absorbed by the body.

Million Fibers per Liter (MFL) - a measure of the presence of asbestos fibers that are longer than 10 micrometers.

Nephelometric Turbidity Unit (NTU) - a measure of the clarity of water. Turbidity has no health effects. However, turbidity can provide a medium for microbial growth. Turbidity is monitored because it is a good indicator of the effectiveness of the filtration system.

Variances & Exemptions (V&E) - State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

Action Level (AL) - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system shall follow.

Treatment Technique (TT) - a required process intended to reduce the level of a contaminant in drinking water.

Spanish (Español) Este informe contiene información muy importante sobre la calidad de su agua beber. Tradúzcalo o hable con alguien que lo entienda bien.

To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

The data presented in this report are from the most recent testing done in accordance with administrative regulations in 401 KAR Chapter 8. As authorized and approved by EPA, the State has reduced monitoring requirements for certain contaminants to less often than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data in this table, though representative, may be more than one year old. **Copies of this report are available upon request by contacting our office during business hours.**

Regulated Contaminant Test Results Hickory Water District

| Contaminant [code] (units) | MCL | MCLG | Report Level | Range of Detection | Date of Sample | Violation | Likely Source of Contamination |
|-------------------------------|-----|------|--------------|--------------------|----------------|-----------|--|
| Inorganic Contaminants | | | | | | | |
| Barium [1010] (ppm) | 2 | 2 | 0.007 | 0.007 to 0.007 | Jul-23 | No | Drilling wastes; metal refineries; erosion of natural deposits |
| Fluoride [1025] (ppm) | 4 | 4 | 0.62 | 0.62 to 0.62 | Jul-23 | No | Water additive which promotes strong teeth |
| Nitrate [1040] (ppm) | 10 | 10 | 0.711 | 0.711 to 0.711 | Jul-23 | No | Fertilizer runoff; leaching from septic tanks, sewage; erosion of natural deposits |

Disinfectants/Disinfection Byproducts and Precursors

| | | | | | | | |
|--|----------|-----------|------------------------|------------------------------------|------|----|---|
| Chlorine (ppm) | MRDL = 4 | MRDLG = 4 | 1.15 (highest average) | 0.61 to 1.64 | 2023 | No | Water additive used to control microbes. |
| HAA (ppb) (Stage 2) [Haloacetic acids] (Annual Sample) | 60 | N/A | 2 (high site) | 0 to 2 (range of individual sites) | 2023 | No | Byproduct of drinking water disinfection |
| TTHM (ppb) (Stage 2) [total trihalomethanes] (Annual Sample) | 80 | N/A | 2 (high site) | 0 to 2 (range of individual sites) | 2023 | No | Byproduct of drinking water disinfection. |

Household Plumbing Contaminants

| | | | | | | | |
|--|----------|-----|-------------------------------------|----------------|--------|----|---|
| Copper [1022] (ppm) Round 1 sites exceeding action level 0 | AL = 1.3 | 1.3 | 0.107 (90 th percentile) | 0.006 to 0.139 | Sep-22 | No | Corrosion of household plumbing systems |
| Lead [1030] (ppb) Round 1 sites exceeding action level 0 | AL = 15 | 0 | 0 (90 th percentile) | 0 to 2 | Sep-22 | No | Corrosion of household plumbing systems |

Your drinking water has been sampled for a series of unregulated contaminants. Unregulated contaminants are those that EPA has not established drinking water standards. There are no MCLs and therefore no violations if found. The purpose of monitoring for these contaminants is to help EPA determine where the contaminants occur and whether they should have a standard. As our customers, you have a right to know that these data are available. If you are interested in examining the results, please contact our office during normal business hours.

| | Average | Range of Detection |
|--|---------|--------------------|
| Sodium (EPA guidance level = 20 mg/L) | 39.2 | 39.2 to 39.2 |

Secondary contaminants do not have a direct impact on the health of consumers. They are being included to provide additional information about the quality of the water.

| Secondary Contaminant | Maximum Allowable Level | Report Level | Range of Detection | Date of Sample |
|------------------------|-------------------------|--------------|--------------------|----------------|
| Chloride | 250 mg/l | 5.4 | 5.4 to 5.4 | Jul-23 |
| Copper | 1.0 mg/l | 0.006 | 0.006 to 0.006 | Jul-23 |
| Corrosivity | Noncorrosive | -2.46 | -2.46 to -2.46 | Jul-23 |
| Fluoride | 2.0 mg/l | 0.65 | 0.65 to 0.65 | Jul-23 |
| pH | 6.5 to 8.5 | 6.8 | 6.8 to 6.8 | Jul-23 |
| Total Dissolved Solids | 500 mg/l | 109 | 109 to 109 | Jul-23 |

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

Sedalia Water District 2023 Water Quality Report

Manager: Brent Shultz
Address: P.O. Box 329 Mayfield, Ky 42066
Meetings: Mayfield Electric and Water Office / Fourth Tuesday each month at 8:00 am

CCR Contact: Todd Thurston

PWSID: KY0420534
Phone: 270-247-4661

The drinking water for Sedalia Water is treated by certified water system operators. Groundwater is obtained from two wells located on State Route 339 E. in Sedalia. Sedalia withdraws and treats water from the Mississippi Embayment (Jackson Purchase) Region of Kentucky. According to the Kentucky Division of Water's guide for wellhead protection, the hydrologic sensitivity value for the aquifer rates as 2 on a scale of 1 to 3 (3 being the highest). There are a total of 22 potential sources of contamination within Sedalia's wellhead protection areas. All of these sources possess a medium susceptibility ranking. The only sources that are located in WHPA-1 and 2 are residential septic systems, the remainder of the sources identified fall into WHPA-3, which has been classified as 1 individual contaminant source. With 22 medium ranked potential contaminant sources and no high or low risk sources present, the aquifer has been determined to have medium risk. The ranking is influenced by the nature of the aquifer, the nature of the potential contaminant sources and historical water quality results. The Wellhead Protection Plan is available for review at our office during normal

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects may be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and may pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include: Microbial contaminants, such as viruses and bacteria, (sewage plants, septic systems, livestock operations, or wildlife). Inorganic contaminants, such as salts and metals, (naturally occurring or from stormwater runoff, wastewater discharges, oil and gas production, mining, or farming). Pesticides and herbicides, (stormwater runoff, agriculture or residential uses). Organic chemical contaminants, including synthetic and volatile organic chemicals, (by-products of industrial processes and petroleum production, or from gas stations, stormwater runoff, or septic systems). Radioactive contaminants, (naturally occurring or from oil and gas production or mining activities). In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water to provide the same protection for public health.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Your local public water system is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

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Below Detection Levels (BDL) - laboratory analysis indicates that the contaminant is not present.

Not Applicable (N/A) - does not apply.

Parts per million (ppm) - or milligrams per liter, (mg/l). One part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) - or micrograms per liter, (µg/L). One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Parts per trillion (ppt) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

Parts per quadrillion (ppq) - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.

Picocuries per liter (pCi/L) - a measure of the radioactivity in water.

Millirems per year (mrem/yr) - measure of radiation absorbed by the body.

Million Fibers per Liter (MFL) - a measure of the presence of asbestos fibers that are longer than 10 micrometers.

Nephelometric Turbidity Unit (NTU) - a measure of the clarity of water. Turbidity has no health effects. However, turbidity can provide a medium for microbial growth.

Turbidity is monitored because it is a good indicator of the effectiveness of the filtration system.

Variations & Exemptions (V&E) - State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

Action Level (AL) - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system shall follow.

Treatment Technique (TT) - a required process intended to reduce the level of a contaminant in drinking water.

Spanish (Español) Este informe contiene información muy importante sobre la calidad de su agua beber. Tradúzcalo o hable con alguien que lo entienda bien.

To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

The data presented in this report are from the most recent testing done in accordance with administrative regulations in 401 KAR Chapter 8. As authorized and approved by EPA, the State has reduced monitoring requirements for certain contaminants to less often than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data in this table, though representative, may be more than one year old. **Copies of this report are available upon request by contacting our office during business hours.**

| Regulated Contaminant Test Results | | | | | | | | Sedalia Water District | |
|--|----------|-----------|-------------------------------------|--------------------------------------|----------------|-----------|--|-------------------------------|--|
| Contaminant [code] (units) | MCL | MCLG | Report Level | Range of Detection | Date of Sample | Violation | Likely Source of Contamination | | |
| Inorganic Contaminants | | | | | | | | | |
| Barium [1010] (ppm) | 2 | 2 | 0.03 | 0.03 to 0.03 | Jul-23 | No | Drilling wastes; metal refineries; erosion of natural deposits | | |
| Fluoride [1025] (ppm) | 4 | 4 | 0.65 | 0.65 to 0.65 | Jul-23 | No | Water additive which promotes strong teeth | | |
| Nitrate [1040] (ppm) | 10 | 10 | 8.64 | 4.42 to 8.64 | Oct-23 | No | Fertilizer runoff; leaching from septic tanks, sewage; erosion of natural deposits | | |
| Disinfectants/Disinfection Byproducts and Precursors | | | | | | | | | |
| Chlorine (ppm) | MRDL = 4 | MRDLG = 4 | 1.08 (highest average) | 0.54 to 1.63 | 2023 | No | Water additive used to control microbes. | | |
| HAA (ppb) (Stage 2) [Haloacetic acids] (Annual Sample) | 60 | N/A | 2 (high site) | 2 to 2 (range of individual sites) | 2023 | No | Byproduct of drinking water disinfection | | |
| TTHM (ppb) (Stage 2) [total trihalomethanes] (Annual Sample) | 80 | N/A | 12 (high site) | 12 to 12 (range of individual sites) | 2023 | No | Byproduct of drinking water disinfection. | | |
| Household Plumbing Contaminants | | | | | | | | | |
| Copper [1022] (ppm) Round 1 sites exceeding action level 0 | AL = 1.3 | 1.3 | 0.224 (90 th percentile) | 0.007 to 0.332 | Aug-23 | No | Corrosion of household plumbing systems | | |
| Lead [1030] (ppb) Round 1 sites exceeding action level 0 | AL = 15 | 0 | 6 (90 th percentile) | 0 to 12 | Aug-23 | No | Corrosion of household plumbing systems | | |
| | | | Average | Range of Detection | | | | | |
| Sodium (EPA guidance level = 20 mg/L) | | | 34.6 | 34.6 to 34.6 | | | | | |

Secondary contaminants do not have a direct impact on the health of consumers. They are being included to provide additional information about the quality of the water.

| Secondary Contaminant | Maximum Allowable Level | Report Level | Range of Detection | Date of Sample |
|------------------------|-------------------------|--------------|--------------------|----------------|
| Chloride | 250 mg/l | 14.8 | 14.8 to 14.8 | Jul-23 |
| Color | 15 color units | 3 | 3 to 3 | Jul-23 |
| Copper | 1.0 mg/l | 0.075 | 0.075 to 0.075 | Jul-23 |
| Corrosivity | Noncorrosive | -2 | -2 to -2 | Jul-23 |
| Fluoride | 2.0 mg/l | 0.86 | 0.86 to 0.86 | Jul-23 |
| Manganese | 0.05 mg/l | 0.008 | 0.008 to 0.008 | Jul-23 |
| pH | 6.5 to 8.5 | 6.8 | 6.8 to 6.8 | Jul-23 |
| Sulfate | 250 mg/l | 1.3 | 1.3 to 1.3 | Jul-23 |
| Total Dissolved Solids | 500 mg/l | 175 | 175 to 175 | Jul-23 |

Nitrate Information

We monitor our drinking water annually for Nitrate as required by the Safe Drinking Water Act. The MCL for nitrate is 10.0 mg/L. The result for our nitrate sample collected on April, July, and October of 2023 was 5.43 mg/L, 7.49 mg/L, and 8.64 mg/L, respectively. Anytime the nitrate level exceeds half of the MCL we are required to initiate increased monitoring from annual to quarterly. Additionally, since the result is half or greater than the MCL we are including the required health effects language.

Health Effects

Nitrate. Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

**South Graves Water District
2023 Water Quality Report**

Manager: Brent Shultz
Address: P.O. Box 329 Mayfield, Ky 42066
Meetings: Mayfield Electric and Water Office / Fourth Tuesday each month at 8:00 am

CCR Contact: Todd Thurston

PWSID: KY0420405
Phone: 270-247-4661

The drinking water for South Graves is treated by certified operators. Groundwater is obtained from two wells drilled into an aquifer of the Claiborne Group beneath our community. The susceptibility to contamination for our source of water is generally low but there are areas of concern. Groundwater can become contaminated due to chemical spills near highways and industrial sites. It can also be contaminated due to underground fuel storage tanks or agricultural activities. Another area of concern is unreported or improperly capped wells drilled into the same aquifer. A Wellhead Protection Plan was developed to identify any potential contaminant source that may threaten our water supply. The source water assessment to potential contaminant sources indicates that currently none of the concerns mentioned above are posing a threat to the water supply but we will continue to monitor activities in the area. The Wellhead Protection Plan is available for review at our office during normal business hours. We encourage you to help us protect your drinking water supply by reporting any activity that may pose a threat.

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Not Applicable (N/A) - does not apply.

Parts per million (ppm) - or milligrams per liter, (mg/L). One part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) - or micrograms per liter, ($\mu\text{g/L}$). One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Parts per trillion (ppt) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

Parts per quadrillion (ppq) - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.

Picocuries per liter (pCi/L) - a measure of the radioactivity in water.

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Nephelometric Turbidity Unit (NTU) - a measure of the clarity of water. Turbidity has no health effects. However, turbidity can provide a medium for microbial growth.

Turbidity is monitored because it is a good indicator of the effectiveness of the filtration system.

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| Contaminant [code] (units) | | MCL | MCLG | Report Level | Range of Detection | Date of Sample | Violation | Likely Source of Contamination |
|--|----------|-----------|-------------------------------------|------------------------------------|---------------------------|----------------|--|--------------------------------|
| Inorganic Contaminants | | | | | | | | |
| Barium [1010] (ppm) | 2 | 2 | 0.008 | 0.008 to 0.008 | Jul-23 | No | Drilling wastes; metal refineries; erosion of natural deposits | |
| Nitrate [1040] (ppm) | 10 | 10 | 0.359 | 0.359 to 0.359 | Aug-23 | No | Fertilizer runoff; leaching from septic tanks, sewage; erosion of natural deposits | |
| Disinfectants/Disinfection Byproducts and Precursors | | | | | | | | |
| Chlorine (ppm) | MRDL = 4 | MRDLG = 4 | 1.23 (highest average) | 0.67 to 1.83 | 2023 | No | Water additive used to control microbes. | |
| TTHM (ppb) (Stage 2) [total trihalomethanes] (Annual Sample) | 80 | N/A | 3 (high site) | 0 to 3 (range of individual sites) | 2023 | No | Byproduct of drinking water disinfection. | |
| Household Plumbing Contaminants | | | | | | | | |
| Copper [1022] (ppm) Round 1 sites exceeding action level 0 | AL = 1.3 | 1.3 | 0.033 (90 th percentile) | 0.008 to 0.062 | Sep-22 | No | Corrosion of household plumbing systems | |
| Lead [1030] (ppb) Round 1 sites exceeding action level 0 | AL = 15 | 0 | 0 (90 th percentile) | 0 to 2 | Sep-22 | No | Corrosion of household plumbing systems | |
| | | | | Average | Range of Detection | | | |
| Sodium (EPA guidance level = 20 mg/L) | | | | 36.2 | 36.2 to 36.2 | | | |

Secondary contaminants do not have a direct impact on the health of consumers. They are being included to provide additional information about the quality of the water.

| Secondary Contaminant | Maximum Allowable Level | Report Level | Range of Detection | Date of Sample |
|------------------------|-------------------------|--------------|--------------------|----------------|
| Chloride | 250 mg/l | 4.1 | 4.1 to 4.1 | Jul-23 |
| Copper | 1.0 mg/l | 0.004 | 0.004 to 0.004 | Jul-23 |
| Corrosivity | Noncorrosive | -2.2 | -2.2 to -2.2 | Jul-23 |
| pH | 6.5 to 8.5 | 7.1 | 7.1 to 7.1 | Jul-23 |
| Sulfate | 250 mg/l | 1 | 1 to 1 | Jul-23 |
| Total Dissolved Solids | 500 mg/l | 94 | 94 to 94 | Jul-23 |

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.